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SURFACE TRANSPORTATION BOARD

STB Ex Parte No. 582 (Sub No. 1)

MAJOR RAIL CONSOLIDATION PROCEDURES

COMMENTS OF OXYCHEM AND OXYVINYLS, LP

And Verified Statement of

Tom O'Connor

Snively King Majoros O'Connor & Lee, Inc.  
1220 L St. NW  
Washington, DC 20005

Ex Parte No. 582 (Sub-No. 1) May 16, 2000

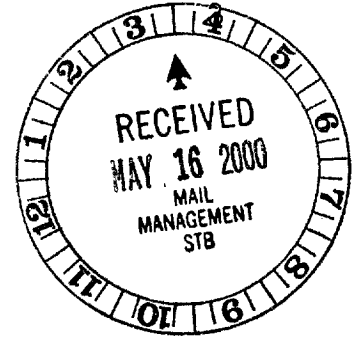
**MAJOR RAIL CONSOLIDATION PROCEDURES**

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# OxyChem and OxyVinyls, LP



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Occidental Chemical Corporation and OxyVinyls, LP<sup>1</sup> (collectively "OXY"), by Counsel, respectfully submit these comments in response to the Surface Transportation Board's (Board or STB) decision of March 17, 2000 and its Advance Notice of Proposed Rulemaking ("ANPR"), served March 17, 2000.

The OXY companies are major producers of chemical products that are used to manufacture a wide variety of consumer goods. OxyChem is the largest marketer of caustic and chlorine in North America. OxyVinyls is one of the world's largest producers of PVC resins. PVC is used for diverse purposes ranging from specialty flexible medical and consumer products to construction products, including pipe and siding.

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<sup>1</sup> OxyVinyls is a limited partnership in which OxyChem is the controlling partner.

### The Supply Chain Concept

The accompanying Verified Statement of Tom O'Connor discusses the issues of this case within a "Supply Chain Concept," which OXY uses to set the strategic approach to logistics in general and the use of the railroad system in particular. The Supply Chain Concept recognizes that in competitive industries, the key to profitability is the producer's ability to drive costs out of the product flow from raw materials, through the various processing steps, to delivery to the end-use customer.

This effort can succeed only if there is close integration within and between supply, production and distribution. Efficient supply requires careful and well planned coordination of raw material purchasing, inbound transportation and raw material inventory. Efficient production requires similar coordination of production planning, scheduling and work-in-process inventory. Finally, efficient distribution requires coordination of customer demand forecasting, "just in time" inventory and outbound transportation. All three must be coordinated with each other, ideally with precision.

The two principal objectives of supply chain management are to reduce costs and improve service. Improved service means greater reliability of delivery, reduced delivery lead times, and transactional accuracy, all of which result in improved customer satisfaction. Service improvement in turn requires speedy and accurate interchange of information among the various elements in the supply chain.

Because of the high premium placed on upstream and downstream coordination and information exchange, a bi-product of the supply chain concept has been vertical

industry consolidation. During this period, there have been at least five major mergers of upstream and downstream companies, with the result that the proportion of the product that involved transactions between companies declined from 49 to 31 percent. This means the remaining 69 percent in 1998 was either vertically integrated or was captured in strategic alliance arrangements between resin and pipe producers.

While vertical integration is always an option, the Oxy Companies have chosen to pursue a strategy which results in a series of tightly integrated Supply Chains with their customer base. This approach focuses on the coordination and collaboration of the interlocking operations of independent companies throughout the supply chain. Through continual, real-time interchange of information, and through coordinated scheduling, the chain of logistical activities operates as though there were a single management. This arrangement does not require joint or common corporate ownership. Indeed, the fact that the participants are independent of each other permits greater flexibility, and it maintains a strong incentive to maximize efficiency. Every partner in the chain knows that it can be replaced or supplemented if its performance begins to fall short of expectation.

### The Role of the Railroads

The role of the railroads is critical to the creation and functioning of effective supply chain management. They are a necessary participant in these tightly integrated supply chains and are responsible for transporting products at all levels of the supply chain. In addition to their obvious role as movers of freight, the railroads also control

critical information on the amount of inventory in transit, expected delivery times, the location and status of the car fleet, car routing and transportation costs. This information is vital to the efficient functioning of supply chain management. The railroads must therefore be enlisted in the common effort to minimize costs and maximize service reliability and speed.

Recognizing the critical role of the railroads, OxyVinyls recently solicited proposals from its major rail service providers to form alliances to handle the logistics of the Company's North American vinyls business. The alliances would be chartered to cooperatively share, examine, and resolve business policies and practices to meet the mutual interests of the members. In place of the traditional arms-length negotiations, OxyVinyls and its railroad partners would jointly explore such concepts as multi-car or unit train shipment, regional distribution zones and hubs, intermodal transport, load forecasting, re-division of rail operations and shipment monitoring, "one-stop shopping" for supply chain logistics, and coordinated business development with premier vinyls industry customers.

### The Relevance of Rail Mergers

Oxy's efforts to redefine the relationship between itself and its railroad providers has important implications with regard to rail mergers. First, it means that Oxy does not necessarily oppose rail mergers. To the contrary, rail mergers can enhance the ability of railroads to function as effective participants in the management of industry supply chains. Twenty years ago, it would have been impossible for any one railroad to have participated in the sort of cooperative alliance Oxy now contemplates. That is

because no one railroad covered more than a small proportion of the nationwide traffic that Oxy seeks to coordinate. Even now, the requirement to interchange between eastern and western railroads represents an additional transaction that could weaken the effectiveness of managing the rail segment of the supply chain.

This does not mean, however, that Oxy is indifferent to future rail mergers, or that it believes the Board's current merger procedures are adequate for dealing with them. To the contrary, as explained by Mr. O'Connor in the accompanying verified statement, Oxy has two serious concerns: the first relates to service, the second to competition.

### Maintenance of Service

Like most major rail shippers, Oxy has suffered serious service disruptions as a result of the two most recent rail mergers. Such disruptions impose massive strain on the supply chain. The very fact that Oxy has been successful in streamlining its logistics system makes it particularly vulnerable to service delays, lost cars (indeed, lost trains), and failed pickups and deliveries. "Just in time" inventory control cannot tolerate uncertainty as to transportation scheduling. A break in the supply of product at one point effectively disrupts the performance of each of the downstream elements in the production and delivery chain.

For this reason, Oxy particularly directs the Board's attention to the portion of Mr. O'Connor's Statement that deals with merger-related service disruptions (See section IV of O'Connor V.S.). There, Mr. O'Connor strongly emphasizes the need for pre-

merger planning and coordination. Before the merger is operationally consummated, the merging railroads should be required to demonstrate, in simulated tests that mirror actual operations, the compatibility of their car and train identification and tracing programs, and their computer and data networks. The Board must establish operating benchmarks based on pre-merger conditions that establish expected performance metrics not only on a system basis but on a regional and sectional basis as well. The merging railroads should be required to establish maximum tonnage densities on all major corridors. These densities must be compared with forecasts of traffic to identify, prior to the final merger, the likely points of congestion.

The critical ingredient is better advance planning. Mergers should not take place without adequate planning. The recent record suggests that rail planning was insufficient. The time frame for mergers must allow sufficient time for the Board to review all significant aspects of the new combination, including the change in traffic flows, competitive effects, coordination and compatibility of computer and operating systems, and the likely responses of non-applicant railroads. Once a merger is approved, the operational integration should take place at a measured rate, allowing sufficient time to iron out unanticipated problems.

### Preservation of Competition

As noted, Oxy is attempting to approach its rail providers as partners rather than vendors, to establish alliances rather than arms-length contracts, and to work together rather than separately to reduce costs and maximize logistical efficiency.



However, the railroads must be willing to make the extra effort required for coordinated problem solving.

To date the results have been encouraging. The railroads with whom Oxy is negotiating have displayed interest in joining in their shipper's supply chain management and seeking mutually beneficial solutions to the logistical problems posed by Oxy's multiple locations and product movements. The railroads' motivation is clear. It is competition.

Mergers, of course, threaten rail competition by reducing the number of potential providers. It is a simple matter of arithmetic that as the number of railroads shrinks, the opportunity for alternative routing over competing lines declines. That is why the pro-competitive access provisions discussed in Mr. O'Connor's statement are so important. First, remedies should be employed to ensure that shippers who now receive service by multiple railroads retain access to multiple railroads. Mr. O'Connor notes the suitability of trackage rights, haulage rights and joint service arrangements as solutions to this problem.

Mr. O'Connor also recommends procedures to enhance competition where it can exist. Oxy particularly commends to the Board's attention the Canadian concept of "interswitching," whereby any shipper with access to only one rail carrier at origin or destination, may, within a specified distance (30 km in Canada) of an interchange point, ship traffic on either one of the interchanging railroads for a prescribed charge.

Oxy is particularly concerned with its growing number of single-railroad locations, particularly those outside of multi-railroad switching areas. When such locations are captive to one railroad, the shipper is often disadvantaged with respect to transportation service or charges at least to the nearest interchange point. This sole service segment of the shipment, termed the "bottleneck," is the Achilles' heel of rail competition.

Mr. O'Connor offers a straightforward two-step solution to the bottleneck problem. The first is to adopt a modified version of the Canadian concept of "Competitive Line Rates." This procedure would require the bottleneck railroad to offer a specific rate limited to the captive portion of the movement, that is, the segment between the captive location to the nearest interchange point with a competing railroad. Mr. O'Connor's second recommendation is to declare this segment subject to the Board's rate reasonableness tests, so that the shipper has a basis upon which to protest the rate and find relief from the pricing power of the railroad. These procedures would allow the railroads to compete where competition is possible without the bottleneck railroad effectively either taxing away the supply chain's profit margin, driving away the freight, or both.

Whether these devices will ensure competition and encourage constructive engagement between the railroads and their shippers, only time will tell. The Board predicts, probably correctly, that the next round of mergers will likely result in two transcontinental systems. Mr. O'Connor expresses concern that this level of concentration, termed a "duopoly," will result in only weak competition. He discusses the possibility that the railroads might then engage in tacit market sharing because

each will fear that if it successfully drives the other from the market, it will invite the scrutiny of government regulators.

If Mr. O'Connor's concerns are justified, then it may be necessary for the Board to address the fundamental competitive structure of the rail industry as other regulators have addressed the structures of the telephone, natural gas and electric utility industries.

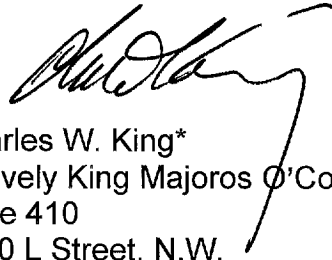
Oxy does not advocate such restructuring at the present time, but it agrees with Mr. O'Connor that responsible transportation policy calls for communicating to the railroad industry the possibility of restructuring as the rail industry embarks on what is likely to be its final round of system mergers, creating a transcontinental and transnational rail duopoly.

Respectfully Submitted,

On behalf of

OCCIDENTAL CHEMICAL, and OXYVINYLs, LP

By



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**Before the Surface Transportation Board**

**Opening Statement on**

**Selected Issues in  
STB Ex Parte No. 582 (Sub-No. 1)**

**Major Rail Consolidation Procedures**

**Filed on Behalf of**

**OxyChem and OxyVinyls LP**

**VERIFIED STATEMENT OF**

**Tom O'Connor  
Vice President  
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**1220 L St NW  
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**Dated: May 16, 2000**

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I.

## **EXECUTIVE SUMMARY**

My name is Tom O'Connor. I am Vice President of the economic and management consulting firm of Snavely King Majoros O'Connor & Lee, Inc. I have served as an economist with the ICC, the USRA, Conrail, the AAR and two consulting firms, including my present firm.

I have been retained by the Occidental Chemicals Corporation and OxyVinyls LP (collectively ("OXY"), both subsidiaries of Occidental Petroleum, to review the record of this proceeding and to analyze the STB's present and prospective role in the impending consolidation of the railroad industry. I have been asked to offer recommendations on rule revisions that could retain, and possibly enhance existing intra-modal competition and avoid the service disruptions that have characterized recent rail mergers.

The OXY Companies are major rail shippers of chemical products, the leading components of which are listed in Section IV of this Statement. OXY's rail shipments are part of its supply chain management program, which seeks to improve service and drive costs from the entire sequence from raw materials through production and into distribution to the end-use customer. Reduced costs are only partly a function of reduced transportation charges. They also derive from careful, coordinated movement of product under tight schedules through the logistical chain so as to optimize inventory levels and minimize transit and arrival time uncertainty. OXY seeks to enlist the railroads as partners in this program for the mutual benefit of shipper, carrier and customer.

The STB decisions of March 17, 2000 and March 31, 2000 indicate clearly that the Board intends to revise its merger rules in three respects: (1) recognition of downstream effects, (2) promoting and enhancing competition, and (3) maintaining efficient rail service. My statement addresses these three issues.

With respect to downstream effects, I agree with the STB that the next round of rail mergers is likely to create a transcontinental (U.S. and Canada) rail duopoly. I recommend that the STB recognize and remedy the fact that this duopoly will provide weak intra-modal competition. In fact, given the duopoly, the STB may eventually have to reconsider the competitive structure of the industry. I discuss the analogous structural changes that have taken place in the telephone, natural gas and electric utilities industries, and I suggest that a similar restructuring may ultimately be required to create effective competition within the railroad industry.

With respect to competition, I explore six policy options available to the STB. The first is maximum rate regulation, which addresses the potential abuse of market power in a highly concentrated railroad industry. I find this a limited alternative. It is inefficient, costly to all parties, and inconsistent with the recent trend of allowing markets, rather than regulators, to set efficient prices.

The second option is a more limited form of regulation that focuses on the specific points where railroads are able to exercise their monopoly pricing power. These are the "bottlenecks," increasingly found at the origin or the termination of a movement, where only a single railroad controls the traffic. Current practices provide very little protection to shippers against bottleneck pricing abuse. Unless the non-bottleneck portion of the shipment is under contract, shippers are permitted



to challenge only the entire rate from origin to destination, rather than the specific charges for the bottle neck portions of the movement. I strongly recommend that the STB revise its practices to allow shippers to challenge bottle neck rates and charges specifically, without regard to the remainder of the rates for the movement.

The third option for increasing competition is to encourage shippers or competing railroads to construct alternative routes around the bottle necks so as to access another railroad. While quite effective in some situations, this option is infeasible for most shippers in most locations.

The fourth option is the unlimited open access to the rail system by all parties: shippers, other carriers and possibly independent train operators. This option resembles that employed in the telephone and electric industries, where previously proprietary route facilities have been opened to competitors in order that functions suitable for competition can be subjected to market forces. While conceptually appealing, this alternative is beyond the STB's current statutory authority, and would probably encounter operational and other problems.

Short of full open access, there are a range of limited open access solutions to the threatened loss of intra-modal competition. These include trackage rights, haulage rights, joint facilities, shared service areas, and two concepts pioneered in Canada, interswitching and competitive line rates. I recommend that these approaches, all of which are within the STB's regulatory authority, be adopted aggressively as conditions for future mergers.

The final policy option is the one that the STB rightly has rejected, that of relying principally on regulatory oversight after the mergers are consummated. As a device for preserving competition, this approach focuses on the narrow specifics of each merger without considering the systemic decline in intra-modal competition throughout the continent.

Merger oversight is critical, however, in ensuring that a merger does not degrade the quality of service to shippers. Effective oversight must begin before the operational merger, for example, with a demonstration that the car identification and tracing programs, and the operational data and computer systems have been "merged" in a simulated setting. The STB's operating benchmarks should also be set before the merger based on pre-merger performance, and they should be refined to detect shortcomings at the regional and local, as well as system, levels. Additionally, the merging railroads should be required to calculate maximum tonnage densities for all major corridors, so as to identify ahead of time potential points of congestion.

Finally, the STB must address potential problems created by the merger of U.S. with Canadian railroads. These problems relate to the absence of uniform reporting of operating and financial data and common levels of disclosure. Without continent-wide uniformity, it will be impossible to assess the financial and operating characteristics of the merged railroads.

## **II. Introduction**

### **A. Statement of Qualifications**

My name is Tom O'Connor and I am Vice-President of Snavely King Majoros O'Connor & Lee (Snavely King), an economic and management consulting company. I have been engaged in the business of economic analysis for more than twenty-five years, beginning in 1973 as an economist with the Interstate Commerce Commission (ICC), predecessor of the Surface Transportation Board (STB) and later in economic analysis, transportation management and consulting positions of increasing responsibility with the United States Railway Association (USRA), Conrail, the Association of American Railroads (AAR), DNS Associates and, since 1987, with Snavely King Majoros O'Connor & Lee, an economic and management consulting company. I was Vice President of DNS Associates and have been Vice President and principal of Snavely King since joining the firm.

I have previously provided testimony in a number of proceedings before courts and regulatory commissions in the United States and Canada including US District Court for Eastern District of Virginia, the Interstate Commerce Commission, the Surface Transportation Board, The United States Railway Association, Regulatory Commissions in New York, and Pennsylvania, State Courts in Montana and Virginia, Arbitration Panels in New York and Massachusetts and a Canadian Crown Commission. A detailed statement of my qualifications is contained in Appendix A to this statement.

**B. OxyChem and OxyVinyls, LP**

OxyChem and OxyVinyls, LP are both subsidiaries of Occidental Petroleum Corporation, a Delaware corporation ("Occidental"). Occidental explores for, develops, produces and markets crude oil and natural gas and manufactures and markets a variety of basic chemicals, including chlorine, caustic soda, and ethylene dichloride ("EDC"), as well as specialty chemicals and vinyls, including polyvinyl chloride ("PVC") resins and vinyl chloride monomer ("VCM").

Occidental conducts its principal operations through its subsidiaries, conducting its chemical operations through Occidental Chemical Corporation and its various subsidiaries and affiliates (collectively, "OxyChem"). OxyChem is a leading chemical manufacturer, with interests in basic chemicals, vinyls, petrochemicals and specialty products.

OxyChem businesses are highly integrated. Chemicals from the Chlor-alkali business are used by OxyChem's specialty businesses, and OxyChem's chlorine is an important feedstock for its OxyVinyls, LP ("OxyVinyls") partnership in the production of VCM and PVC.

Oxy Vinyls is a new joint venture company between OxyChem and The Geon Company ("Geon"), which combines the PVC resin assets, vinyl chloride monomer assets, and specific Chlor-alkali and co-generation assets of both companies.

OxyVinyls is headquartered in Dallas, Texas, with ownership shared between OxyChem and Geon on a 76% and 24% basis, respectively. This venture brings together:

- 4.2 billion pounds of PVC resin capacity,
- 4.8 billion pounds of vinyl chloride monomer capacity, and
- Chlor-alkali capacity of 920,000 electrochemical units.

OxyVinyls has become the largest supplier of PVC resin in North America and the third largest supplier in the world.

Both OxyChem and OxyVinyls (Oxy) are committed to serving the marketplace with high quality materials, building a very reliable supply chain, and providing strong leadership in environmental and safety affairs. In addition, OxyVinyls remains committed to the promotion and protection of vinyl and its products.

The VISION for OxyVinyls is to become a global market leader in the Chloro-Vinyls chain with a focus on innovation, market diversification, and low cost — thereby creating value for all stakeholders.

A substantial portion of OxyChem's products are principally commodity in nature, i.e., they are equivalent to products manufactured by others that are generally available in the marketplace and are produced and sold in large volumes, primarily to industrial customers for use as raw materials. This fact increases the importance of service quality, as well as of production and transportation costs in determining the success of the enterprise.

I have served as a technical adviser on rail and rail related issues first to OxyChem in its Reengineering Project and subsequently to OxyVinyls on projects centering on its Supply Chain business model. Both OxyChem and OxyVinyls, collectively referred to in this verified statement as OXY, requested that I conduct an independent analysis of the issues raised in Ex Parte 582.

### **C. Background**

After considering the extensive written comments, as well as the statements delivered in person at its 4-day hearing, the STB concluded that the rail community is not in a position to undertake what would likely be the final round of restructuring of the North American railroad industry. It further concluded that its current merger rules are not adequate for addressing the broad concerns associated with a merger process that could lead to just two large North American transcontinental railroads.

Accordingly, the STB announced that it would not accept further merger filings involving a major transaction (defined at 49 CFR 1180.2(a)) until it had the opportunity to revise its merger rules and put them in place. The principal purposes of this proceeding is to develop those new STB merger rules.

I have based my analysis on my prior experience planning and participating in rail mergers, acquisitions and divestitures, as well as on analysis of both the record developed at the STB's hearings and filings pursuant to Ex Parte No. 582 initiated on January 24, 2000 to obtain public views on the general subject of major rail consolidations and the present and future structure of the North American railroad

industry. The purpose of this statement is to report my analysis of the issues raised in Ex Parte 582.

I note that a decision from the US Court of Appeals on reopening BN-CN merger is due on June 13, 2000. Since the Court is reviewing the STB's decision to defer consideration of the BN-CN merger, its decision could impact this proceeding.

### **III. SUMMARY OF APPROACH**

Major and diverse shippers, such as OXY, regard rail transportation as part of the Supply Chain. OXY evaluates rail service as well as rail rates, costs and routings as part of its Supply Chain Management process. OXY, in particular OxyVinyls, has made a strong commitment to Supply Chain as a business model and both OxyChem and OxyVinyls consider rail transportation part of the Supply Chain Management process.

Supply Chain Management is the process of organizing the cost-effective flow and storage of materials, in-process inventory, finished goods and related information from point of origin to point of consumption in order to satisfy customer requirements. An effective supply chain joins the supplier, the producer, and the final customer in a continuum. For OXY, many of the most critical links involve the railroad system.

While mergers can create efficiencies, by definition they also reduce alternatives.

As the data in Appendix B indicate, many of the OXY points are sole served by a single rail carrier. This heightens the importance of reliable rail service and tends to limit alternatives when rail service falters.

OxyChem sustained significant and repeated failures in rail service, as a consequence of the UP-SP rail mergers. Both OxyChem and the more recently created OxyVinyls have sustained declines in service and increases in cost as a result of the NSC-CSX-CR acquisition. Oxy has incurred approximately \$5 million in added costs and lost production as a result of the UPSP merger and the NSC-CSX-CR acquisition.

The rail service failures have caused:

- Diversions to alternative modes
- Curtailment of plant production
- Declines in equipment utilization
- Difficulties in meeting OXY customer needs and
- Extensive use of OXY resources to overcome service deficiencies.

#### **A. Supply Chain**

While both OxyChem and OxyVinyls use Supply Chain concepts, we can understand the importance of Supply Chain to OXY more easily by focusing on the OxyVinyls Supply Chain project. The OxyVinyls Supply Chain Vision summarizes the importance of the Supply Chain concept.



**OxyVinyls Supply Chain Vision**

**OxyVinyls (OVLP) will be a leader in enhancing customer satisfaction and creating value for OVLP and our supply chain partners through an efficient integrated supply chain that leverages technology and improves the overall business process.**

- *We will understand the needs of our customers, employees, suppliers and service providers and take action to satisfy those needs.***
- *We will take an integrated approach to the supply chain to maximize profitability and create sustainable competitive advantage.***
- *To accomplish this, we will:***
  - *Implement technology that supports improvement in efficiency and service levels.***
  - *Modify business processes to reduce costs through simplification, innovation and elimination of low value activities.***
  - *Creatively engage people in the business, driving ownership, and rewarding performance.***

***The ultimate OVLP supply chain goal is to convert hydrocarbons and salt from the earth into finished PVC products which end up in a distribution channel to satisfy consumer demand in a more efficient, lower cost, and higher service level manner than anyone else in the PVC industry.***

Rail mergers affect this entire Supply Chain process. As the STB record in the UP-SP merger and more recently the NS-CSX-CR transaction illustrates, recent rail mergers have, at times, created service problems that have rendered effective supply chain management virtually impossible. OXY has directly experienced the

adverse effects of both mergers and seeks to prevent recurrences of those defects in the future. In this regard, the data reported in Appendix B demonstrate:

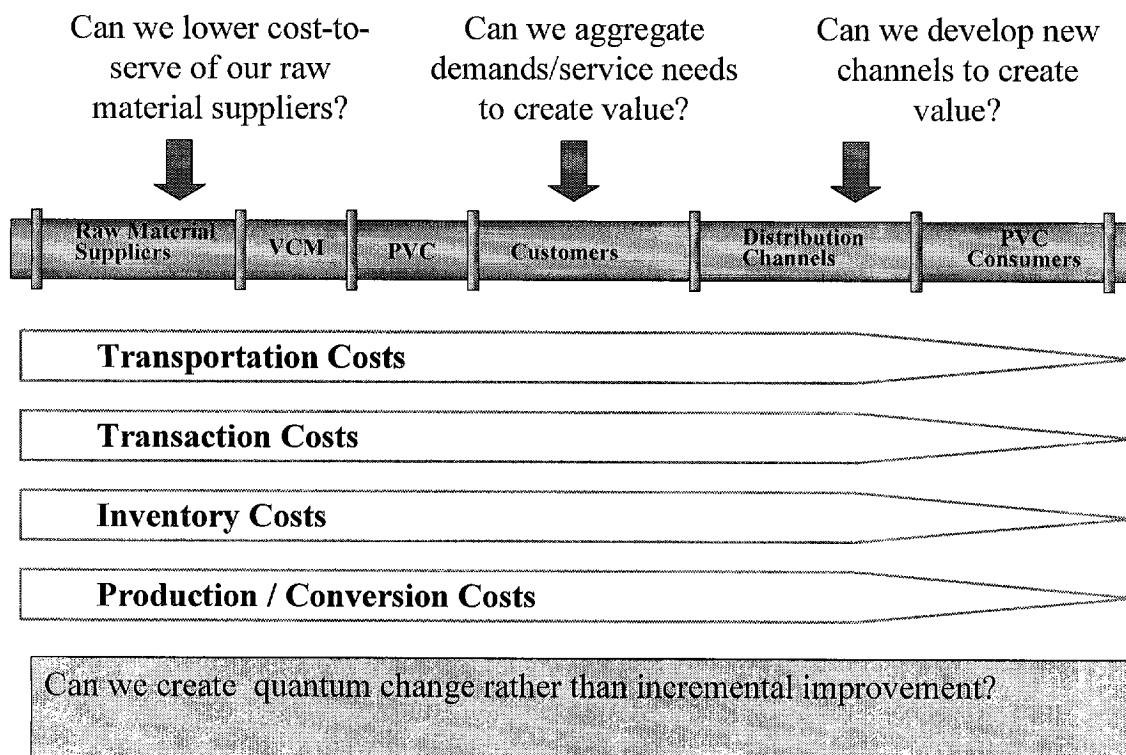
- OXY points which are now served by only one rail carrier, with limited access to competitive alternatives in part due to recent mergers
- OXY points which are at risk of the loss of competitive alternatives due to the recently proposed BN-CN merger
- OXY points which could sustain the loss of competitive alternatives due to the expected mergers responsive to BN-CN.

The effectiveness of supply chain management is driven by the ability of the sequence of participants (links) in the chain to coordinate their activities in the most efficient manner possible. Each link must hold if the Supply Chain is to hold. Weak links must be strengthened or replaced. The experience of past mergers emphasizes the importance of transport alternatives as a remedy for weakened and broken supply chain links.

Unfortunately, recent rail mergers, presumably intended to improve efficiency, have instead too often eroded competitive options and diminished alternatives. In some instances, the NSC-CSX-CR acquisition increased the number of competitive alternatives through much of the East. OXY experienced some dramatic reductions in service in the wake of moving from Conrail to a combination of NSC and CSX.

Such service failures cause major problems since rail transportation impacts several links in the supply chain including transportation costs and inventory costs, as illustrated in the following chart;

## OVLP Supply Chain



The Surface Transportation Board has the opportunity and the duty to develop a vision of the future of the rail system that will:

- Remedy the defects that surfaced in recent rail mergers and
- Enhance the efficiency of the supply chain available to the nation's shippers.

The rail merger guidelines at issue in this proceeding are an important step in implementing this vision. At a minimum, they can prevent further erosion of the rail supply chain. Hopefully, they can contribute to its strengthening. We note that the STB espouses enhancing, rather than merely preserving competition and we endorse that.

This analysis outlines, in part through analogy with other industries vested with the public interest, the structure of the rail industry most conducive to competitive efficiency. Recognizing that designing a new rail structure is not a goal of this merger guideline proceeding, I offer suggestions on achievable and effective policy options that would advance the efficiency of the rail system by providing shippers with additional tools for their supply chain management.

#### **IV. OXY's RAIL USAGE AND EXPERIENCE**

##### **A. OXY's Rail Service Management**

Occidental was organized in April 1986 and, as the result of a reorganization effective May 21, 1986, became the successor to a California corporation of the same name organized in 1920. Occidental's principal businesses constitute two industry segments, one of which is chemicals. Two of its major subsidiaries in the chemicals business are OxyChem and OxyVinyls, LP; who have requested that I review the issues in this proceeding.

Both OxyChem and OxyVinyls, LP are major rail shippers. I have direct experience with the rail transportation of both companies as a result of a series of rail related consulting assignments from 1996 through the present.

OxyChem is a leading chemical manufacturer, with interests in basic chemicals, vinyls, petrochemicals and specialty products. OxyChem owns its interest in petrochemicals through its Equistar investment.

OxyChem businesses are highly integrated. Chemicals from the Chlor-alkali business are used by OxyChem's specialty businesses, and OxyChem's chlorine is an important feedstock for the OxyVinyls, LP partnership in the production of VCM and PVC.

A substantial portion of OxyChem's products are principally commodity in nature, i.e., they are substantially equivalent to products manufactured by others that are generally available in the marketplace and are produced and sold in large volumes, primarily to industrial customers for use as raw materials. Many of OxyChem's manufacturing operations are integrated, and many of its products are both sold to others and further processed by OxyChem into other chemical products.

Effective April 30, 1999, OxyChem and Geon formed the OxyVinyls partnership, combining the commodity PVC resin and VCM assets of both companies, and two Chlor-alkali and co-generation plants of OxyChem.

**B. PRINCIPAL PRODUCTS**

OxyChem produces the following chemical products:

<b>Principal Products</b>	<b>Major Uses</b>
Chlorine	Raw material for vinyl chloride monomer, Chemical manufacturing, pulp and paper production, water treatment
Caustic soda	Chemical manufacturing, pulp and paper production, cleaning products
Potassium chemicals	Glass, fertilizers, cleaning products, rubber (including potassium hydroxide)
Ethylene dichloride	Raw material for vinyl chloride monomer
Sodium silicates	Soaps and detergents, catalysts, paint pigments
Chrome chemicals	Metal and wood treatments, leather tanning
Chlorinated isocyanurates	Swimming pool sanitation, household and Industrial disinfecting and sanitizing products

OxyVinyls LP produces the following chemical products:

<b>Principal Products</b>	<b>Major Uses</b>
Vinyl chloride monomer ("VCM")	Raw material for polyvinyl chloride produced by OxyVinyls
Polyvinyl chloride ("PVC")	Resins for flooring, medical gloves and other flexible vinyl resin and films applications.
	Calendered films for automotive, packaging, and consumer products
	PVC pipe for municipal, plumbing and electrical uses.
	External construction materials such as window and door profiles, fencing, and decking.
	Flooring, medical and automotive products, wire and cable insulation, and packaging.

In addition OXY also produces a number of specialty chemicals and proprietary chemicals for aerospace, agricultural, automotive, pharmaceutical, food-service and other applications. During 1999, OxyChem was the largest merchant marketer of chlorine and caustic soda and the largest producer of chrome chemicals in North America. OxyVinyls was the largest producer of PVC resins and VCM in North America.



### **C. COMPETITION**

The chemical business is very competitive. Most of Oxy's products are commodity in nature and compete primarily on the basis of price, quality characteristics and timely delivery. Because of this Oxy strives to be an efficient, low-cost producer through the employment of modern, high-yield plants, equipment and technology.

Transportation is a significant cost to Oxy and this has led to the decision to seek strategic partnerships with its transportation providers. Oxy's annual logistics costs exceed \$320 million per year. More than \$210 million of this is rail related.

Oxy's size and the number and location of its plants also produce competitive advantages, some of which can be shared with its transportation providers.

All of OxyChem's manufacturing facilities are owned or leased on a long-term basis. The charts below list the principal facilities and plant capacities of the basic chemicals group, specialty business group and OxyVinyls.

**D. Principal Products and Production Capacities at December 31, 1999(a)**

Plants	Chlorine (Tons)	Caustic Soda (Tons)	Caustic Potash (Tons)	EDC (millions of lbs.)
Mobile, Alabama	48,000		75,000	
Muscle Shoals, Alabama	154,000		242,000	
Delaware City, Delaware	146,000	83,000	109,000	
Convent, Louisiana	389,000	435,000		1,500
Taft, Louisiana	738,000	839,000		
Niagara Falls, New York	335,000	371,000		
Ingleside, Texas	602,000	669,000		1,500
Total	2,412,000	2,397,000	426,000	3,000

(a) All of the volumes listed in the table above are based on estimated capacities only. Actual results of production may differ materially.

**Source; Oxy 10K**

**E. Principal Products and Production Capacities at December 31, 1999(a)**

Plants	Chlorine (Tons)	Caustic Soda (Tons)	VCM (millions of lbs)	PVC Resins (millions of lbs)
<hr/>				
OXYVINYLS				
Deer Park, Texas	395,000	435,000	1,200	635
Ingleside, Texas(b)			1,200	
LaPorte, Texas	525,000	580,000	2,400	
Pasadena, Texas				1,800
Louisville, Kentucky				585
Niagara Falls, NY				525
Pedricktown, New Jersey				320
Scottford, Alberta				335
<hr/>				
Total	920,000	1,015,000	4,800	4,200

(a) The volumes listed in the table above are based on estimated capacities. Actual results of production may differ materially

(b) OxyMar, 50% with Marubeni

**Source; Oxy 10K and OxyVinyls Web site**

These plants generate significant volumes or rail, truck and pipeline transportation.

OXY has an experienced cadre of transportation and logistics managers focusing on the delivery of effective and efficient transportation, including rail transport.

Working in cooperation with its transportation providers , OXY continually seeks improved service and increased value from its supply chain.

## **F. OXY Experience with Rail Mergers**

Despite OXY's extensive investment in rail transportation management, like many other rail-served companies, recent rail mergers have caused significant and long lasting problems. Rail service disruptions have at times threatened the entire supply chain.

The NS-CSX acquisition of Conrail, like the UP-SP merger which preceded, caused significant dislocations. Throughout this process Oxy worked with the railroads to solve problems as they arose and to anticipate and prevent longer term problems.

However, that merger experience is one that OXY would prefer not to repeat. This proceeding offers an opportunity to develop better procedures, learning from the bitter lessons of recent rail mergers.

## **V. Service, Reporting and Procedural Changes**

### **A. Introduction**

Oxy shares the two primary concerns of rail shippers: competition and service. While not solely determined by rail mergers, shipper concerns have grown more intense in recent years as a result of mergers.

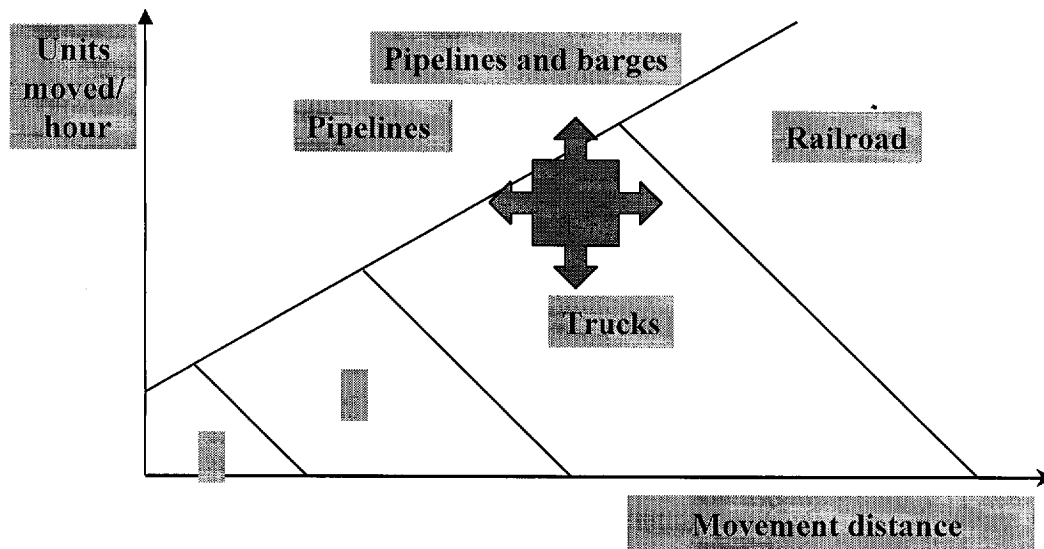
The fundamental Oxy Supply Chain concept is mutual service. In this section we focus on service. The goal is to build a company's supply chain into an optimally

efficient, customer-satisfying process, where the effectiveness of the whole supply chain is the objective rather than inordinate gains captured by individual links, whether that link is a department, a supplier or a transport carrier.

Declining performance of the rail link, such as occurred in recent mergers can lead to serious dislocations in logistics and supply chain processes as illustrated in the following chart. The chart depicts the process transportation managers confront in the wake of rail mergers.

Capacity and capabilities that were the foundation of the logistics flows erode and shift. Each day brings new challenges as the transport system reverberates with the aftershock of the merger. This is a needless experience and one which Oxy prefers to avoid going through again.

The choice of cost-effective means of transport changes during rail mergers. Rail freight is forced to other modes when rail links in the Supply Chain degrade



To anticipate and prevent or correct service problems, measurement of the process is essential. Rail industry measurements include car inventory, system velocity, trains held for power or crews or congestion, locomotive power availability, rail system productivity.

Measurement must include not only the metrics of importance to rail management but also those of importance to the rail customer and to their end customers. While degradation in the rail management metrics often correlates with degradation in the customer metrics, it is preferable to measure the reliability, consistency and timeliness of delivery from the customers perspective, as well as from a blocking plan or railroad timetable perspective.

Incentives and disincentives can be built into the process based on the metrics. The design of the process is important. Customer service issues particularly need well designed measurements. And customer service includes many discrete issues, some of which are not easily measured. Some of the most important service issues include:

- continuity in understanding of customer's needs and wants
- ability to deliver necessary customer service levels
- variations between operating plans and actual implementation
- effective communications with the customers
- identifying and resolving differences among supplier's, railroad's and customer's perceptions of satisfactory service levels.

One of the major benefits asserted by railroads involved in a merger is the efficiency gains associated with single line service. However, single line operations

are often accompanied by declines in both competition and service. The number of railroads handling the shipment between origin and destination is of minor concern to most rail customers. Typically, the rail customer is more concerned with reliability, competitive alternatives and adequacy of performance by the serving railroad.

Shippers not producing or receiving time sensitive freight tend to be primarily concerned with maintaining service at consistent and reliable levels. Large fluctuations in transit times, both inbound and outbound, have severe impacts on the supply chain. Past mergers have resulted in interruptions in production, lost freight cars leading to lost sales, and the threat of plant shutdowns.

The specific alternatives discussed below are suggestions on how to minimize or even eliminate the service failures that occurred as the result of past mergers. The following discussion also identifies actions that could reestablish some of the competition that has been lost between rail carriers during the merger process.

## **B. Operational Alternatives:**

### **1. Line-Haul Service**

The next round of mergers will create two transcontinental rail systems. Shipper options into and out of the major gateways will be severely reduced and in some instances eliminated. The major gateways can be broadly defined as those locations where four or more railroads currently interchange traffic or there is a switching railroad that handles the pickup and delivery of rail cars within the switching limits of the locality.



The major gateways that will be impacted by the formation of transcontinental rail systems will include:

- Chicago, IL,
- St Louis, MO including East St. Louis,
- Memphis, TN,
- Kansas City, MO and
- New Orleans, LA.

The newly merged systems will attempt to maximize their length of haul in order to capture the highest portion of the line-haul revenue as possible. This will be especially true of commodities that yield the greatest revenue margins, such as coal and chemicals. As the options at the origin and destination points have been continually reduced with each merger the serving carrier has gained more control over the line-haul routing of the shipment.

The next step in the merger sequence is creation of transcontinental railroads. Transcontinental railroads will basically eliminate a rail shipper's ability to negotiate separate rates into and out of major gateways. Even with the existing limited number of railroad systems there are at least two railroads into and out of all major gateways. An illustrative example would be a movement from northern New Jersey to Houston, TX. Currently a shipper could choose CSXT or NS into East St. Louis or Memphis and then BNSF or UP into Houston, TX. If CSXT merged with UP, it is doubtful that CSXT would interchange the traffic to its competitor, BNSF. The shipper would be limited to a choice of using one of the merged systems from origin to destination. Under this situation the shipper's choice may be confined not to the most direct and efficient route but rather to one of the merged systems.

I **recommend** that as a condition of all future mergers, especially those resulting in transcontinental railroads, the STB should establish a mechanism that will set reasonable rates separately into and out of the major gateways when the railroads fail to allow for interchanges at major gateways.

## **2. Local Service**

Mergers have continually reduced the number of locations with multiple carrier service options. This trend can be reversed by opening up shippers in a locality to service by another railroad through reciprocal switching. Shippers that are located within the switching limits of a locality only served by one railroad would benefit, as would the second serving railroad newly providing the line-haul service to that locality.

### **a) Reciprocal switch**

The reciprocal switching charge could be set at a reasonable level by the STB if the two railroads involved cannot reach an agreement. The reciprocal switching charge might well be less than the terminating railroad's division of the through rate. In order for the arrangement to be fair to both carriers, the difference in switching rates per car and the volume handled under the two facility agreement should offset to the greatest extent possible. All reciprocal switch charges would be absorbed by the line-haul railroad through the rate.

Providing access through this mechanism is preferable to trackage rights in high density traffic areas, especially industrial yard locations. Under the reciprocal switch arrangement, the carrier owning the switching facility does not have to accommodate the trains of another railroad on its system. By contrast, scheduling trains over trackage rights can lead to operating problems in terminals with a high

traffic density. If the trains operating on trackage rights are either late or early, delays can ripple out through both the owning railroad and the carrier operating on trackage rights.

The Houston area is a high density operation which took months of intensive effort to regain adequate service levels after the UP-SP merger. The solution involved a joint dispatching facility, based at Spring Texas.

The STB can establish the structure and to the greatest extent possible the railroads involved in the agreement should work out the locations, operating details and the level of charges. This approach will also ease the problems when service levels are reduced in a post merger environment.

**b) Terminal switching railroads**

A second possible solution is the incorporation of joint agencies or terminal switching railroads that are owned by the line-haul railroads that serve the locality. Railroads such as the PTRRA in Houston, TRRA in St. Louis and the service provided in the Shared Asset Areas by Conrail provide examples of this. In certain circumstances this type of organization is more efficient in its operations and provides the rail customer better service.

**3. Pre-Merger Safeguards:**

With the exception of the CN-IC, mergers in recent years have resulted in severe service disruptions with major adverse impacts on the operations of rail customers.

Operational planning exercises were carried out by the merging railroads in each instance and were intended to eliminate the service disruptions that occurred. The STB through its oversight procedure has monitored the operations of the railroads in the post-merger environment. Identified below are some of the more important areas of a newly merged system often appearing as the cause of service problems. The procedures identified in each area may reduce or eliminate similar service disruptions in future mergers.

**a) Rail Car Tracing and Identification**

Car tracing and car identification systems in the merged system have been major problems for shippers. Often simply locating the car has seemingly been impossible. Shipper cars have been shown as empty and returned to the shipper still loaded; neither having reached their destination nor been unloaded.

**I recommend** that in the future, the STB should be presented with documented evidence that the systems of the merging railroads have successfully been "merged" in a simulation setting and also run in parallel with the systems of the individual railroads. This will demonstrate to the railroads, shippers and the STB the compatibility of the different systems and can increase the probability that the merged system will be functional on day one of the post-merger environment.

**b) Computer and Data Systems**

The electronic transmission of operating data is often cut over to the combined system on a piecemeal basis. If the merged system is to operate and conduct business as a single unit it must have compatible systems for every facet of integration.

I **recommend** that the integration of the different systems be tested in a real time setting. In the past, merging railroads have conducted tests of the new system more often in a simulated or laboratory setting. A better test of the merged system can be developed by applying it to the entire operations of the merged system using actual data. When such systems have been tested in the past, the volume of through put data has often been on a limited scale with the full scale test occurring during actual operations. Perhaps larger scale or full scale test results should be provided to the STB as proof that the systems will function as required in the post-merger environment.

**c) Establishment of Operating Benchmarks**

The current procedures of the STB's oversight of mergers are to establish operational benchmarks such as train speed, cars in the system, dwell time and car throughput in major terminals, etc.

I **recommend** that the train speed and cars in the system data should be developed for major operating divisions of the system in addition to the system as a whole. As the merged rail systems increase in size, statistics for the entire system may not reveal problems in specific geographical areas until the problem begins to adversely impact the entire system or rail network.

I **recommend** that statistics, useful as benchmarks, be developed to give early indications of trouble spots within the merged system. These benchmarks should be developed and established in a stable pre-merger environment. The benchmark data should be gathered on carriers in a pre-merger situation, operating at normal levels without major delays or problems, other than those normally experienced in daily operations. Changes in these benchmarks post-merger would alert the operations personnel and the STB to potential problems that could be developing.

I **recommend** along these same lines, the development of tonnage densities for all major traffic corridors. Railroads have merged while rationalizing their infrastructure to the extent that capacity constraints could become an issue in the next round of mergers. Moreover, rail transportation in certain commodity groups has shown continued growth. This was cited as one of the underlying causes for the congestion on rail lines exiting from northern New Jersey, in the NS-CSXT-CR merger. The maximum density and the current density should be computed for all major corridors in order to assure the STB that the capacity exists for future growth. This could also be used to evaluate the train operation plan presented by the merging railroads.

It is easy to take the position that the railroads already do all these functions as part of their merger planning process. But the recent history of service disruptions suggests that the railroad's planning procedures in these areas were insufficient.

I **recommend** in connection with tonnage density, that data be developed for the top ten commodities or commodity groups and the system as a whole for each of the merging railroads. This data should illustrate the trends for these products over

the last five years for which the data is available. The months of the current calendar year for which data is available should also be included. The data should include the number of tons, loaded car miles, and the total ton-miles. Increases in these statistics could signal rail planners as to increased requirements for motive power, train crews and rail cars. The data could also be compared with the traffic projections included in the application.

**d) Procedural Time Frame**

Mergers filed with the STB and ICC in recent years have been handled under increasingly ambitious time frames.

**I recommend** a moderated time frame for future mergers to allow sufficient time for the issuance and handling of a scoping order by the STB calling for study of critical parameters. This order would consider addressing issues raised with the market analysis, operating plan, labor, traffic diversion study, and so on prepared by the railroads. The merging railroads would then be given adequate time to respond to the questions raised by the STB or other parties to the proceeding. This could help to identify and resolve issues that are perceived by certain parties to be potential problems with the merger plan.

**C. Inclusion of Canadian Railroads:**

Canadian railroads have been included in mergers with U.S. railroads in the past. As evidenced by the application of the BNSF and CN-IC, Canadian railroads will in all likelihood be included in future mergers involving U.S. railroads. As these systems become more integrated, the cost of operating the merged system will tend to be more heavily influenced by the characteristics of the Canadian operations.

In adjudicating a rate proceeding that involves a merged system that includes the CN or CP, the STB and the non-railroad party must have accurate cost data.

If the operations are truly merged the financial and operating data for the merged system should be filed with the STB in the same manner and format as is currently required of the U.S. railroads. If the shipment is handled in the U.S. over lines of both the BNSF and CN, under a single line through rate, for example, there is no method to subdivide the through rate and challenge the BNSF portion separately.

While, the current reports of the U.S. railroads would continue to be filed with the STB, if the rate structure continues to develop single line rates involving both Canadian and U.S. railroads it will be impossible for shippers to identify or contest unreasonable rates.

**I recommend** as a condition of allowing the merger of Canadian and U.S. railroads the STB should require that all financial and operating data be filed for the combined system on the basis currently required of U.S. railroads. To allow the U.S. portions of the merged system to continue to file separate reports will not produce true costs, representative of the combined operation.



## **VI. REVIEW OF THE ISSUES**

I have carefully reviewed the key issues discussed in the STB March 31 decision. Based on this review, I believe these issues can be grouped into three categories:

- Issues where STB apparently sees a need for change in the merger rules
- Issues where STB might see a need for change in the merger rules
- Issues where STB apparently does not see a need for change in the merger rules

### **A. Issues Where STB Apparently Does See a Need to Change Existing Merger Regulations**

#### **1. Promoting and Enhancing Competition.**

The STB now appears much more receptive to altering rail merger policy to enhance, rather than simply preserve, competition. Among the competition-enhancing elements of recent mergers has been the concept of "Shared Assets Areas" which were initiated in the recent Conrail merger to open up competition between CSX and NS. I note in passing that operations have not necessarily been made more efficient by the simple addition of another potential carrier. More work is needed in this area. Additionally, both the UP-SP and CSX/NS/Conrail mergers included negotiated agreements granting trackage and haulage rights to competing carriers.

During hearings in Ex Parte No. 582, some parties suggested other means to promote and enhance competition in the rail industry. These candidate remedies

included requiring merger applicants to:

- Open gateways for all major routings.
- Provide switching, at an agreed-upon fee, to all exclusively served shippers located within or adjacent to terminal areas.
- Offer, upon request, contracts for the competitive portion of joint-line routes when the joint-line partner has a bottleneck segment.
- Provide a new through route at a reasonable interchange point whenever they control a bottleneck segment and the shipper has entered into a contract with another carrier for the competitive segment.

Others have advocated revising the application of the so-called "one-lump" theory to rail mergers. Following that theory, the Board has declined to require access to additional carriers by exclusively served shippers whose sole carrier sought to merge with one of several connecting carriers. Shippers have urged the Board to provide exclusively served shippers with access to an additional carrier, through trackage rights, in order to promote and enhance, rather than merely preserve, competition

**I recommend** enhanced access as necessary to the preservation and expansion of competition and the consequent efficiency of the railroad system. It would be beneficial not only to shippers, but to the railroads. Subsequently in this statement, I discuss the long-term industry restructuring that the STB should be considering, and the near-term actions that might be adopted in the context of revising the merger rules.

**1. Recognition of Downstream Effects.**

The STB apparently recognizes that each major merger precipitates further mergers. It therefore proposes to eliminate the "one case at a time" rule and to examine "downstream" effects, including likely strategic responses to major merger proceedings by non-applicant railroads.

I **recommend** requiring a complete study of the downstream effects of subsequent mergers. The technology enabling such downstream studies has been widely available for more than a decade.<sup>2</sup>

**2. Impact on Rail Service.**

The STB recognizes that serious service disruptions were associated with recent mergers, disruptions which caused significant harm. Accordingly, the STB appears receptive to suggestions on additional service safeguards. Candidate remedies noted by STB include:

- Performance measures to evaluate post-merger service;
- More detailed periodic reports of post merger operations;
- More detailed service integration or implementation plans, with enforceable penalties;
- Required plans for preserving service options available to small shippers;
- Assurances of acquisition of new infrastructure and capacity; and

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<sup>2</sup> Snavely King has routinely performed such studies for its clients for years.

- More detailed review of the financial terms with a view toward minimizing future service disruptions and any harm that could result from any such disruptions.

I **recommend** substantially increasing the requirement for reliable metrics in the service area as part of the merger application process. As the experience in Houston illustrates, the railroads eventually will master the operating problems and restore acceptable service. Requiring better planning can move the false starts back onto the drawing boards and out of the switching yards.

**B. Issues where the STB apparently might change existing merger regulations**

**1. Short Line and Regional Railroad Issues.**

The STB appears interested in requiring applicants to submit plans for promoting the viability of existing regional and short line railroads. It might also consider the generic "Bill of Rights" advocated by the American Short Line and Regional Railroad Association. Among the "rights" of such railroads are the right to compensation for service failures, the right to interchange and routing freedom, the right to competitive and nondiscriminatory pricing, and the right to fair and nondiscriminatory car supply.

I **recommend** studying this set of issues carefully and considering extending to shippers the same "rights" deemed appropriate for small railroads. In past merger studies we have found substantial commonality of impact and interests between small railroads and shippers.

**2. Employee Issues.**

Rail labor groups have suggested that the STB require merger applicants to agree to forgo any effort to "cram down" post-merger changes in collective bargaining agreements and/or to offer their employees expanded labor protection (e.g., 10, rather than 6, years of benefits).

**3. "Three-to-two" Issues.**

Many parties have suggested that STB should give greater weight to competitive harm where the number of rail carrier alternatives would be reduced by a merger from three to two. It appears, however, that the STB is undecided whether to modify the regulations or handle this case-by-case examination.

**I recommend** that the STB accord the 3 to 2 situations importance comparable to that accorded to the 2 to 1 points. OXY still has some 3 to 2 and 2 to 1 points left. Many other shippers have seen that competitive access virtually disappear. The STB should take firm steps to preserve the remaining competitive options.

**4. Merger-Related Public Interest Benefits.**

Many parties have suggested that STB should be more vigorous in securing public interest benefits of a proposed merger and that it should monitor the merger's implementation to ensure that the projected benefits are actually realized. Some parties have suggested that applicants demonstrate that claimed synergies or other public interest benefits could not be achieved short of merger through marketing alliances or cooperative operating practices.

I **recommend** that the STB increase the weight accorded to public interest in its decision making process. The balance between private interests of the merging parties and the public interest of the shipping and consuming public needs to be restored.

**C. Issues where the STB apparently does not see a need to change existing merger regulations**

**1. Safety Issues.**

STB asserts that safety concerns will remain a primary goal in railroad merger cases, but it intends to stay with the current approach applied on a case-by-case basis.

I **recommend** that safety, a paramount interest in the chemical industry, remain a primary goal in rail mergers.

## VII. Analysis of Key Issues

In considering the key issues, I reviewed not only the record in this case but also the supply Chain concepts OXY is implementing as part of its business planning. That planning process is summarized in the following chart:

### OVLP Supply Chain

OxyVinyls' supply chain approach is to view our business as an integrated pipeline . . .



- o Stock Transfers (Internal)
- o Purchasing (External raw materials)
- o Inbound Transportation
- o Raw Material Inventory

- o Production Planning
- o Production Scheduling
- o Work in Process Inventory

- o Forecasting
- o Customer Service
- o Finished Goods Inventory
- o Terminals
- o Outbound Transportation

. . . and to assess the performance of this system along four dimensions:

- ▲ Cost - the full cost of processing and moving materials from source to point of use.
- ▲ Service - delivery reliability, delivery lead-time, transaction accuracy, customer satisfaction.
- ▲ Value - add value through increasing productivity and flexibility of the pipeline.
- ▲ Speed - increase the flow of information to allow for proactive versus reactive behavior.

As the preceding charts indicate, the relationships are multi-faceted and complex. One of the overarching principles is interdependence of the enterprise with transportation, particularly rail transportation. Accordingly, securing reliable rail transportation is a primary determinant of success for the entire supply chain.. Concomitantly, faltering rail mergers jeopardize the entire supply chain.

Based on my review of these issues, and illuminated by the efforts of OXY and other major shippers in planning for and responding to recent rail mergers, my analysis focuses on three key issues:

- **Downstream Effects.** I believe it is critical that the STB anticipate the impact of any further mergers on the structure of the rail industry. Based on its ANPR, STB appears ready to broaden its view on this issue, and I encourage it to do so.
- **Competition.** I agree with a significant number of shippers and smaller railroads (and apparently the STB itself) that new rules must ensure that competition is not curtailed by future mergers.
- **Service Quality.** I also agree with the many parties who argued that additional safeguards are necessary in STB merger regulations to ensure that future mergers are not accompanied by serious or prolonged service disruptions.

Since these issues are closely linked, they will be discussed together in the context of my analysis of the overall trends in the rail industry. I begin with downstream effects.



**1. Downstream Effects**

The STB states that it definitely intends to eliminate its "one case at time" rule and to consider "downstream effects" including the likely strategic responses of non-applicant railroads. The practical reality is that approval of any further mergers is tantamount to launching the final consolidation of the industry, almost certainly into two transcontinental railroads. In a few years, the STB will be confronted with a transcontinental rail duopoly.

Duopolies tend to generate weak competition. This is because each duopolist tends to market its products and services with the other duopolist in mind. Any price, product or service change by one competitor will often be met by an offsetting move by the other. This arrangement leads to very conservative marketing programs, that is, a tendency not to "rock the boat" by challenging the other duopolist too forcefully. In fact, duopolists are likely to engage in a pattern of tacit market sharing. Each participant knows that if it drives the other from the market, the government, which might tolerate a duopoly, will likely step in if threatened with a full monopoly. This is particularly true of an industry as critical to the public interest as the railroads.

In the rail industry, the weakness of duopoly competition will be amplified by the fact that most shippers will be physically located on either one or the other of the two systems. This provides each carrier with a long list of customers over which it has considerable market power. Indeed, in the absence of some sort of regulatory

intervention, the future rail structure could be viewed less as a duopoly than as a pair of parallel monopolies, each with its own core group of captive customers.

To be sure, there is inter-modal competition. The competitive threat of the pipeline, motor carrier and barge industries does constrain railroad rates for many commodities and movements. But the economic efficiency of relying on different modes of transportation to restrain the railroad prices suffers from severe limitations. While it may encourage efficiency for some types of traffic, it also results in cross-commodity subsidies, where the commodities/movements threatened by inter-modal competition are underwritten by those for which such competition is lacking. There is no incentive to price rail-dominant traffic in an efficient manner.

Left alone, the new structure of the rail industry may render intramodal rail competition a thing of the past. A possible result could be a railroad system that competes only for marginal traffic, that overcharges and underserves captive traffic, and that has little incentive to enhance the efficiency of its operations.

## **2. Responses to Market Concentration**

If a transcontinental duopoly is the inevitable outcome of the current round of mergers, then the STB should develop policies that anticipate that inevitability. The objective of these policies should be to support competition wherever possible and, where competition is not possible, to protect the shipping public through continued regulation. In the short run, this involves preserving the limited competition that

currently exists and identifying the "choke points" where rail carriers are able to exert monopoly pricing power.

In the long run, this policy involves the injection of competition into the existing system. Ultimately, this approach may require opening institutional barriers that have traditionally been viewed as proprietary rights of the railroads. This long-range view reflects the fact that the railroads, once active competitors to each other, may soon cease to compete. Their role must be reconsidered. Rather than competitors themselves, they could be viewed as providers over which many competitors can operate. As experience in other industries indicates, this structural arrangement can produce significant benefits for the carriers as well as the shippers.

### **3. Examples from the Utility Industries**

To understand the nature of this reconsideration, it is useful to examine the experience of other industries where the traditional proprietary controls of the incumbent providers have been relaxed so that competition, and the efficiency that it fosters, can flourish. In every case, the public has benefited, and the traditional providers have also reaped enormous rewards.

#### **a) Telecommunications**

The telephone system was once considered the classic "natural monopoly." The Bell System, controlled by the American Telephone & Telegraph Company (AT&T), owned most of the telephone handsets and other terminal equipment on

customers' premises, handled virtually all of the long-distance telephone service, and operated over 80 percent of the telephone lines in the nation. Independent telephone companies were no more competitive. Each had its own franchised monopoly service territory.

All telephone prices were set by regulation. Interstate long distance rates were regulated by the Federal Communications Commission, and rates for local and intrastate service were regulated by the state public utility commissions.

In the 1960's and 1970's a number of competitive entities successfully challenged AT&T's self-asserted right to monopolize the telephone terminal equipment market, and the FCC subsequently required AT&T to divest its ownership of these assets. Almost overnight, AT&T's monopoly disappeared, regulation of telephone equipment prices ended, and the market, not regulators, determined not only the prices, but the style, makeup and technological sophistication of telephone terminal equipment.

The result of this mandated relaxation of the proprietary right of the Bell System to own and control the telephone equipment market has been an explosion of innovation, a dramatic reduction in prices, and a vast expansion in the range of equipment available to the public.

AT&T also fared well despite the loss of secure, vertically integrated markets. Through a series of corporate transformations, AT&T now survives as Lucent Technologies, one of the world's most successful and profitable producers of telecommunications equipment.

The next challenge was leveled at AT&T's dominance of the long-distance market. MCI, Sprint and others demanded that they be allowed to interconnect with the Bell System first for "private line" services, and then for switched service. This effort culminated in 1984 with the breakup of the Bell system into seven local exchange telephone companies and a separate, independent entity that provided competitive long-distance service.

Again, the effect on the incumbent monopolist was beneficial, notwithstanding its prolonged efforts to resist the intrusion of competition into its markets. During the five years following divestiture, AT&T doubled its annual plant additions, yet its return on investment skyrocketed. In 1984, AT&T's equity return was 8.03 percent. Ten years later, in 1994, it was 29.9 percent.<sup>3</sup>

The final challenge to monopoly power in the telephone industry occurred when Congress passed the Telecommunications Act of 1996. This legislation required the incumbent local exchange telephone companies to open their systems to access by competitive providers. These pro-competitive provisions included mandatory permission to resell any telephone company service, collocation of competitors' equipment in the telephone companies' offices, and sale of "unbundled network elements" such as the telephone lines between the local switching offices and the subscribers' premises. Once the local companies opened their systems to competition, they would be allowed to re-enter the long-distance markets from which they had been excluded in 1984.

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<sup>3</sup> FCC Statistics of Common Carriers, Table 14 (1984); Table 2.9 (1994).

**b) Natural Gas**

The natural gas industry of the early 1970s was heavily regulated from the wellhead to the burnertip. Market power was firmly in the hands of the interstate pipeline companies. Pipelines purchased gas from wellhead producers at regulated rates and transported it to the "city gate" for resale to the local distribution companies, which then delivered it to end-use customers. The pipelines' price, also regulated, was a "bundled" rate that included the commodity cost, transportation, storage, handling and delivery.

Independent gas producers had virtually no market power and depended entirely on the pipeline companies to get their product to end users. Then, as now, the exploration and production of gas (and hence the level of proven reserves) depended upon the price producers could get for their gas. As a consequence of artificially low regulated prices for interstate gas, a perceived shortage of gas developed in 1976-1977.

This crisis precipitated the Natural Gas Policy Act of 1978, which removed the regulation of the wellhead price of gas for interstate sale. The subsequent restructuring of the natural gas industry, however, was largely instigated by the regulatory agency, the Federal Energy Regulatory Commission ("FERC"). In FERC Orders 436 (1985) and 500 (1987), pipeline companies were given incentives to transport third-party gas, rather than the gas of their own merchant subsidiaries. In 1992, FERC promulgated Order No. 636, which made open access transportation and storage of third-party gas mandatory. This order completely separated the merchant (sales) function from pipeline transportation services. All gas, regardless

of its owner, is now transported under the same non-discriminatory rates, and any party, pipeline, local distribution company, or end-use customer can buy gas at the wellhead.<sup>4</sup> As a result, a new class of participants, the gas marketer, has become an important link in the supply chain for natural gas.

What has been the effect of this deregulation and restructuring? Initially, gas prices tripled, but the effect was to dissipate, almost immediately, the perceived shortage of gas reserves. Once wellhead prices stabilized, they held relatively steady up to the beginning of this year, when they were influenced by the OPEC-stimulated runup in energy prices which caused them to increase again.

The effect on pipelines was extraordinary. A 1999 study of the largest pipeline parent companies (representing 88 percent of all interstate pipeline revenues) revealed that the FERC's requirement to abandon the gas merchant function caused their revenues to decline by 41 percent, from \$17.9 billion to \$10.6 billion between 1992 and 1997. Their expenses, however, declined apace, from \$13.0 billion to \$5.0 billion, with the result that there was a negligible contraction in net income, from \$2.7 billion to \$2.4 billion. While there were considerable investments in the industry during these years, most related to corporate consolidation.<sup>5</sup> Since 1996, however, the industry's construction expenditures have increased dramatically, from approximately \$1.2 billion to \$3.5 billion in 1999 and a projected

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<sup>4</sup> In fact, most gas is purchased at market centers, of which there are several dozen.

<sup>5</sup> "Corporate Realignments and Investments in the Interstate Natural Gas Transmission System," by Susanne Johnson, Jon Rasmussen, and James Tobin, Energy Information Administration/Natural Gas Monthly, October 1999.

\$5.0 billion in 2000.<sup>6</sup>

The same restructuring that occurred for interstate pipelines is now under way at the local level. Local distribution companies are being encouraged, and in some states required to open their system to gas purchased by end-use customers directly from competing marketers. This open access policy allows consumers to seek out the lowest prices both for wellhead gas and for the transportation and storage of that gas. The consuming public can expect further savings from these changes.

**c) The Electric Utility Industry**

Like the telephone industry, the electric utility industry has long been considered a "natural monopoly." It has been dominated by vertically integrated entities, most of them private corporations, that hold exclusive franchises to sell electricity to all customers within their designated service territories.

A major justification for the "natural monopoly" of electric utilities was the economies of scale of power generation. In general, the size of the generating plant and the cost of the power generated were inversely related. Cheap electricity required very large power plants. However, about 1990, technological developments, most notably the development of combined cycle combustion turbines, cancelled this traditional relationship between plant size and cost. Suddenly, small plants could be built that generate power as cheaply as large ones. This meant that small, independent entrepreneurs could produce electricity

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<sup>6</sup> Energy Information Administration, Financial Analysis Team, Office of Energy Markets and End Use.



competitively with the incumbent electric utilities. For the first time in history, competition could be introduced into the electric generation industry.

This potential competition immediately encountered the ownership ties of a vertically integrated system. The same incumbent utilities that controlled the existing power plants also controlled the transmission system and the distribution network. Competitors may be able to generate electricity efficiently, but they had no way of reaching their customers except over the lines of the incumbent utilities. Those utilities had little incentive to accommodate the new upstarts.

The Energy Policies Act of 1992 addressed this problem squarely, at least for the FERC-regulated wholesale markets. That Act created a new class of Exempt Wholesale Generators ("EWGs"), which are entities that generate power for sale but which are unrelated to any of the incumbent utilities in the region. Those entities would be entitled to equal and non-discriminatory access to the incumbents' transmission systems at tariff rates filed with the FERC.

The 1992 Act applied only to federally regulated wholesale power, that is, power generated for resale, somewhere between 10 and 20 percent of the nation's total. Retail competitive access to end-use customers is a state matter, since retail electric service is under state commission jurisdiction.

As one would expect, different states have taken different approaches to this issue. In general, the states with the highest electric rates – northeast and California – have addressed retail access most aggressively. Most states have required that the transmission grid be placed under independent control to deprive the incumbent of

any opportunity to favor its own generators over those of its competitors. Some states gone so far as to required its incumbent utilities to divest their generating assets. At this writing, every state in the nation except South Dakota is in the process of opening its electric transmission and distribution system to some form of open access.

And how have the incumbents fared through this process? Last year, Snavely King conducted a study of the 43 sales of generating plant assets that had taken place between mid-1996 and mid-1999. We found that the dollar-weighted average sale price of the generating plants that had been sold was approximately twice the book value of the plants. Since the book value was the basis for the utilities' profit allowances, the effect of the sales was to double the earnings capabilities of these utility companies' assets.

Competitive access to retail electric customers has thus been a bonanza to the electric utility industry, yet it is safe to say that not one utility advocated it. The principal proponents of open access have been the industrial consumers of electricity, who recognized that the market would provide them with the leverage to create significant savings for themselves and their customers. Paradoxically, their self-interest has redounded to the benefit of the incumbents who resisted open access most vociferously.

**d) Relevance to the Rail Industry**

The foregoing examples drawn from the utility industries demonstrate quite clearly that a high level of industry concentration is not necessarily inconsistent with the

development of effective and beneficial competition. To the contrary, the incumbent monopolists (or duopolists) can function as enablers, rather than inhibitors of competition, and they can benefit to the same degree – if not more – as the new competitors.

In order for the incumbents to fill this role, I see two fundamental changes in modus operandi of the industry. First, there must be a clear identification of the activities that can be opened to competition and a separation of them from those functions that continue to be intrinsically monopolized.

The electric utility industry affords a good example. It is universally recognized that power generation lends itself to competition but that the transmission and distribution functions continue to be natural monopolies. Power generation is opened to all competitors and is deregulated. Transmission and distribution continue to be subject to regulation. Similarly, in the telephone industry, subscriber access is recognized as the bottleneck function of the telephone industry that will continue to be dominated by the incumbent carriers. Meanwhile, long distance telephone service, for which competition is feasible, is offered separately by highly competitive firms.

Second, there necessarily must be some intrusion by governmental authority into what the incumbents have traditionally perceived as their proprietary rights. Ironically, the successful introduction of competition requires this intrusion. For example, competition in the telephone equipment market required a governmental mandate that AT&T surrender its proprietary right to own and control all equipment attached to its network. Competition in the long-distance market was possible only

when the government altered the corporate structure of the Bell System. Competition in the local exchange market required the government to force the incumbents to interconnect competing carriers. Competition for gas procurement required a governmental prohibition against gas pipelines functioning as gas merchants. Competition in the electric industry can be effective only when existing transmission grid owners are forced to provide equal access all generators of power.

It is not difficult to apply the utility restructuring model to the railroad industry. The railroads provide two quite distinct functions: they own and maintain railroad tracks, and they own and operate railroad trains over those tracks. Both of these functions are generally controlled entirely by the same entities, and both will become subject to the anti-competitive effects of the impending transcontinental duopoly.<sup>7</sup>

The ownership of railroad tracks is arguably a monopoly function. It is often infeasible to expect competing entities to share the provision of rights-of-way.<sup>8</sup> The experience with the NSC-CSXT-CR acquisition suggests however that even provision of the right of way can support two separate entities in certain markets. The operation of trains, however, clearly is not intrinsically a single-provider activity and could be opened to competition. Again, the electric utility analogy suggests itself. The transmission lines (the line haul component, like rail lines) are centrally controlled and operated by a single entity. The power that feeds onto those lines,

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<sup>7</sup> There are other related functions such as the provision of railroad cars that are somewhat competitive already.

<sup>8</sup>Although, as the "Shared Asset Areas" of the northeast corridor suggest, even this assumption may be open to question.

however, is generated by a variety of competing firms. The competitors pay the transmission entity for the right to use the lines, but the power (functionally similar to rail freight) flows to customers designated by the generators at prices determined by a very competitive market.

#### **4. Policy Options**

While it is relatively simple to identify the potentially competitive functions within a monopolized rail industry, the second change required for effective competition, which is the government intrusion into the incumbents' perceived propriety rights, is a far more difficult proposition. The following discussion addresses the broad categories of policy solutions that suggest themselves. Our summary charts compare these options against 12 different criteria.

##### **a) Maximum Rate Regulation**

If the railroads are to consolidate into two entities for the entire continent, then perhaps some case might be made for the reregulation of the industry. This reregulation would be limited to traffic that has no demonstrable intermodal competition, and it would establish only maximum rate levels. The railroads would be free to reduce rates at their discretion. It would thus be lighter-handed than the regulation that prevailed prior to the Staggers Act, but it would represent a marked increase in the regulatory role currently played by the STB.

While this policy option has some appeal as a solution to the pricing power of the railroads, its efficiency is questionable. Moreover, it would be costly to administer for the STB, the railroads, and the shippers whom it presumably would benefit. Although I am not an attorney, I believe it would also require revision to the statutes that currently govern the regulation of the railroad industry.

**I recommend against reregulation.** In my opinion, reregulation is an outdated solution, whose time has passed. The trend in the utility industries, discussed earlier, has been to harness the market as the most efficient form of price regulation. Heavy government regulation has particularly ill-served the railroad industry and its users.

**b) Resolution of the Bottleneck Impasse**

If total re-regulation is infeasible and undesirable, and I believe it is, there is a much more limited application of regulation that would substantially enhance the protection that shippers require from the pricing power of heavily concentrated railroads. It concerns what are called "Bottleneck" situations. Bottleneck situations occur when there is a movement involving multiple railroads, but at either origin or destination (or both) only one railroad can pick up or deliver the traffic. The sole originating or sole terminating railroad is termed the "bottleneck" carrier. The rate charged by this carrier for its portion of the total rail movement is defined as the bottleneck rate.

The STB has established some fairly constraining criteria that must be met before a shipper can challenge a bottleneck rate. The first criterion is operational. There

must be no reasonable alternative service from another railroad or mode of transportation.

The second criterion is commercial. A rate challenge is disallowed unless the balance of the total rail rate, excluding the bottleneck rate, is a contract rate. That is because, under existing regulations, the STB does not regulate contract rates. The STB's rationale is that two parties entering into a contract do so under mutual consent, and a contract is legally binding on both parties unless certain situations occur. Therefore, if the total transportation charges are part contract and part tariff, the STB would only be able to adjudicate the non-contract portion. Thus, the only rate that could be challenged would be the non-contract tariff portion, the bottleneck rate.

Under existing STB rules, in movements involving multiple railroads where the entire rate from origin to destination is a combination of proportional rates or local rates, the rate of the bottleneck carrier cannot be challenged on its own merits in isolation from the remaining published rates. When these circumstances are present, all of the rates applicable to the particular movement must be challenged by the rail user. This position has been upheld by the appellate courts based on a Supreme Court decision which found that a shipper's interest in challenging a rate is on the entire rate and not a portion of that rate. Despite a widely held view in the shipper community that this was not the intended application of this principle, it is the standard currently applied.

As indicated above, the ability of a rail customer to challenge a bottleneck rate is currently available only under restricted circumstances. The next round of mergers

could further reduce the number of situations under which bottleneck rates can be challenged separate from the total through rate.

With the likelihood of combining rail systems currently transporting shipments in between the east and the west, the substitution of single-line through rates for movements that are currently a combination of contract and tariff rates is a distinct probability. The merged system has only to let the contract expire and publish a joint- line or single-line rate from origin to destination. Under the current bottleneck rules, this would require the rail customer to challenge the entire rate. Agreements could be made between the railroads to maintain the current rate levels of the individual carriers but file them collectively as a single through rate. This would protect the bottleneck carrier from having its rate challenged.

As railroads merge into larger systems they will wield more influence over shortline railroads, who in many situations, are the bottleneck carriers. A bottle- neck shortline carrier can eliminate a challenge to its effective rate by including its rate in the through rate published by its connecting Class I carrier. If it cannot reach agreement with the connecting railroad on a division share of the through rate, it can publish its own rate. As long as the balance of the rail movement is not occurring under a contract, the shortline's individual published rate cannot be challenged under the current bottleneck guidelines.

If the rate cannot be challenged as a bottleneck rate, the only existing regulatory remedy available to the rail customer is to file for rate relief under the non-coal rate guidelines, Ex Parte No.347 (Sub-No.2), or the coal rate guidelines, Ex Parte 347 (Sub-No.1). If the cost and expected return of instituting these complex



proceedings does not justify the relief sought, the rail customer is effectively precluded from any rate relief from the STB.

Neither of these regulatory options is particularly effective or efficient. The cost of a maximum rate case under the Ex Parte No. 347 (Sub-No.1) guidelines can easily exceed \$1,000,000. Given the fact that a significant number of such cases result in no rate relief, many shippers have dismissed maximum rates cases as a viable course of action. The development path on the non-coal rate guidelines, Ex Parte No. 347 (Sub-No.2) has been prolonged and laborious. However, again, little if any rate relief has resulted from the process. With failure of these avenues of recourse, the rail customer is now precluded from any rate relief from the STB under existing regulations.

Mergers are likely to increase bottlenecks, the instance of through rates, and the corresponding vulnerability of shippers to the pricing power of bottleneck carriers.

I **recommend** a reasonable, but restrained application of the STB's regulatory authority to require, as a condition for future mergers, that shippers be permitted to challenge bottleneck rates regardless of the nature of any other rates in the movement between origin and destination. When a railroad sets a proportional or local rate as its revenue compensation, that rate would then be subject to rate reasonableness tests on its own merits.

Bottleneck rates are unique in that they are largely shielded from regulatory review. The proposed bottleneck rate relief would remove this shield and allow the rate to be evaluated on its own merits. This policy option is immediately available to the STB, it can redound to the benefit of shipper and railroad alike, and it will increasingly be needed in the context of the final round of mergers.

**c) Build Out to Competing Rail**

As an alternative to paying bottleneck rates, a competing railroad or shipper can, in theory, build their own rail line. This alternative is theoretically always available to shippers seeking intra-modal competition.

I **recommend** that it should be supported by the STB as a countervailing force against unreasonable rail rates or inadequate rail service. It is, of course, prohibitively expensive to most shippers. Except in relatively rare instances, it is simply not practicable.

**d) Open Access**

A case might be made for a complete restructuring of the railroad industry similar to that which was imposed on the telephone and gas industries and which is currently under way in the electric utility industry. Under this scenario, the rail line ownership function might be decoupled from the train operation function. Any party capable of operating a train would then have access to the rail rights-of-way by paying regulated access charges. If the railroads chose (or were allowed) to continue to

operate trains, they would do so in competition with other railroads, with shippers, and possibly with non-rail train operators.

Again, this is a somewhat radical approach, one that would probably require legislative authority for the STB to implement. It does, however, have a certain amount of conceptual appeal, and should be examined as a possible long-term solution. If adopted, it would have to be implemented very carefully to avoid operational problems that could disrupt the rail system. Barring a major change in attitude on the part of the railroads, it would encounter their vociferous opposition.<sup>9</sup>

#### **e) Limited Open Access**

Short of full open access, a number of limited open access strategies can improve the opportunities for shippers to enjoy the benefits of intra-modal competition.

These strategies can be grouped functionally. First, there are **operational** innovations such as:

- Haulage rights, where the freight of the entering carrier is hauled to serve the target market in the trains of the incumbent carrier.
- Trackage rights, where the trains of the entering carrier reach the target market by operating over the track of the incumbent carrier.

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<sup>9</sup> However, as the history of the utility restructurings has demonstrated, the opposition of the incumbents was neither insurmountable nor in the incumbent's own self interest.

- Joint Facilities, where the entering carrier and the incumbent carrier agree to jointly build a facility or cooperatively use an existing facility, thus lowering costs and increasing service. Storage in transit facilities are an apt example.

There are also **commercial** solutions, which include arrangements whereby marketing and rate making authority is extended into markets not otherwise competitively served.

Examples of these solutions are found in Canada, where rail duopoly has been a reality for most of the country's history. The Canada Transportation Act provides two mechanisms that allow Canadian shippers to access either of the line-haul carriers. The first is Interswitching; the second is Competitive Line Rates.

Interswitching applies if a shipper has access to only one rail carrier at origin or destination. The shipper may have cars interswitched from the serving carrier to another railroad at prescribed rates if shipper's siding is within a 30-kilometer radius of the point of interchange. The 30-kilometer limit is not rigid, however, and can be extended. The rate must not be less than the variable costs of moving the traffic.

Competitive Line Rates (CLR) apply if the shipper has access to only one rail carrier at origin or destination and a continuous route between those points is operated by two or more companies. The shipper must be beyond the 30-kilometer interswitching limit. In these circumstances, the local carrier can be required to establish a competitive line rate from the origin or destination to the nearest interchange with a connecting carrier. The shipper must first agree to rate, terms, etc. with connecting carrier. Any portion of the move covered by an interswitching

rate will use that rate. Shipper must show they will suffer "substantial commercial harm" if the Canadian Transport Agency does not grant CLR.

CLR provisions have seen limited use due to requirements that shipper and line-haul carrier agree on rates before CLR is determined, and the shipper show "substantial commercial harm" if CLR is not granted. However, the availability of these provisions has enhanced shippers' competitive options in the marketplace, without actual regulatory intervention.

As the Canadian experience illustrates, limited commercial access solutions are available without significantly altering the existing regulatory framework. The Interswitching arrangement is similar to our recommended reciprocal switching and bottleneck rate recommendations.

#### **f) Regulatory Merger Oversight**

The final policy option is "business as usual" in the merger review process. It is to approve each merger with a series of specific conditions and requirements that are to be reviewed after the fact by the STB through its oversight process. This is the "one at a time" practice that the STB appears intent on abandoning. And for good reason.

Its effectiveness in preserving competition is limited because it requires that the merger review anticipate all possible anti-competitive outcomes from the combination. It addresses the narrow specifics of each merger without considering the systemic decline in intra-modal competition throughout the continent. Finally, it

creates an after-the-fact remedial arrangement that reacts to, rather than anticipates, plans for and prevents the unexpected and adverse effects of each merger.

**B. Summary Review of Options**

**Monetary, Geographic and Commodity Constraints on Policy Options**

Option	Monetary Cost of solution to Shipper	Monetary Cost of solution to Railroad	Geographic constraints on Option Applicability	Commodity constraints on Option Applicability
Maximum Rate Regulation	High	High	No	Yes
Resolution of Bottleneck rate impasse	Low	High	Yes	No
Build Out to Competing Rail	High	High	Yes	No
Open Access	Low	High	Yes	No
Limited Open Access Via Haulage Rights	Low	Low	No	No
Limited Open Access via Trackage rights	Medium	Medium	Yes	Yes
Regulatory Merger Oversight	High	Low	Yes	Practical limits

It is necessary to consider the ongoing institutional constraints on policy options

Option	STB Resource Requirement for Solution	STB ongoing involvement in Solution	Regulatory constraints on Option Applicability	Legal constraints on Option Applicability
Maximum Rate Regulation	Major	Major	Major	Major
Resolution of Bottleneck rate impasse	Major	Minor	Medium	Minor
Build Out to Competing Rail	Medium	No	Medium	Minor
Open Access	Major	Minor	Major	Major
Limited Open Access via Haulage Rights	Minor	Minor	Medium	Minor
Limited Open Access via Trackage Rights	Minor	Minor	Medium	Minor
Regulatory Merger Oversight	Major	Major	Major	Major



The effectiveness, efficiency and track record of the policy options varies

Option	Effectiveness of Solution	Efficiency of Solution	Proven track record of Option	Experience with use of Option
Maximum Rate Regulation	High	Medium	Yes	Extensive
Resolution of Bottleneck rate impasse	High	High	Extensive in Negotiations area	Extensive in Negotiations area
Build Out to Competing Rail	High	High	Yes	Extensive
Open Access	High	High	Yes	Extensive in Negotiations area
Limited Open Access via Haulage Rights	Low	Low	Mixed Reviews	Limited
Limited Open Access via Trackage Rights	Medium	Medium	Yes	Extensive
Regulatory Merger Oversight	Low	Low	Limited	Limited

As the summary charts indicate, the policy options are numerous and their implications are diverse. As discussed in the preceding section, among the more promising options is limited open access, a policy option which could be implemented in a number of ways and which can meet the needs of both railroads and shippers.

## VIII. Conclusion

The next round of mergers will almost certainly lead to the final consolidation of the railroad industry into two transcontinental systems. Without clear policy direction from the STB, this duopolized industry will lose its competitiveness and efficiency. If that happens, the supply chains with railroads as key links will themselves lose competitiveness. This can have significant adverse effects. The STB can prevent further merger disarray and damage by adopting two types of policy options. Based on my review of the rail industry and similar concentrated industries I recommend that the STB should adopt the following two policy options.

**Bottleneck rates.** The first policy option deals with bottleneck rates and increases protection for shippers by permitting them to challenge a bottleneck rate on its own merits without regard to related rates and charges for the other segments of the movement.

**Competitive Access.** The second option is to adopt a range of strategies for increasing access by shippers to an alternative rail carrier. These include haulage and trackage rights, interswitching, and competitive line rates.

The combined effects of the final wave of railroad mergers and failure to develop pro-competitive solutions would seriously hinder a wide range of shipper industries and ultimately redound to the disadvantage of the railroads themselves.

The essential test of the regulatory policies is how efficiently and effectively they generate competitive alternatives. If the regulatory policy enables the creation of competitive alternatives, market forces will complete that process and generate mutually satisfactory solutions.

As I have shown in this statement, policy options are now available to the STB which can remedy the detrimental effects of the coming wave of rail mergers while promoting financial health of the entire supply chain; supplier, shipper, customer and railroad. I urge the STB to adopt the recommended policy options:

- Extend the proven regulatory threshold costs tests to enable challenges to bottleneck rates.
- Adopt a range of strategies to increase access by shippers to alternative rail carriers, including haulage rights, trackage rights, interswitching, and line haul access modeled on the Canadian competitive line rates.

## **IX. Appendix A: Qualifications**

### **Experience**

**Snavely King Majoros O'Connor & Lee, Inc., Washington, DC**  
**Vice President (1988-Present)**

Mr. O'Connor has more than twenty five years experience in the transportation industry. His experience includes key and increasingly responsible management and policy positions with government agencies and private industry.

Mr. O'Connor, in recent years has conducted analyses for the Government of Canada used to shape policy for freight transportation transport policy. He also has developed the Master Plan for Management Information Systems and computer facilities to measure, manage and monitor both rail freight and rail passenger transportation for the Bulgarian State Railways, in Bulgaria and the Balkan Peninsula. He has created and managed numerous computerized transport management and regulatory systems and is a widely recognized expert on costing and economics.

Mr. O'Connor has analyzed more than 45 rail merger scenarios and cases. He has provided expert testimony before state and federal courts and commissions in the U.S. and Canada on economic and policy issues. He has also testified as an expert on computerized transportation analytical systems, rail operations, anti trust issues and transportation costing. Mr. O'Connor also has served as an impartial and expert monitor of data and processes at issue in litigation on transportation.

Within the litigation arena, Mr. O'Connor has also conducted management audits of

railroads, focused on identifying the cause and effect relationships underlying claimed cost incidence. The management audits were directed toward testing the cost basis of bills submitted by major railroads.

**DNS Associates Inc., Washington, DC**  
**Vice President (1982 - 1988)**

Mr. O'Connor directed and participated in numerous projects including merger analyses, transportation infra-structure analyses, plant and network rationalization and feasibility studies. He designed and implemented mainframe and microcomputerized systems for analyzing rail, truck and barge logistics. The computerized cost systems Mr. O'Connor created are in widespread use throughout the United States and Canada.

Mr. O'Connor also advised the U.S. Rail Accounting Principles Board on the costing aspects of regulatory reform policies. He also provided expert testimony on computerized data bases and cost systems and related rail cost issues before the Interstate Commerce Commission.

**Association of American Railroads, Washington, DC**  
**Assistant Vice President, Economics (1979 - 1982)**

Mr. O'Connor designed and managed major economic analysis projects. He helped formulate industry economic policy positions culminating in the Staggers Rail Act of 1980. He submitted expert testimony on behalf of the railroad industry in numerous cases before the Interstate Commerce Commission and state regulatory

commissions. He also appeared regularly in national forums on economic issues.

Mr. O'Connor directed the most significant computerized industry Costing System project in 40 years, URCS, the cost system now used by all major US railroads. He also conducted industry seminars on URCS and related economic issues.

Mr. O'Connor also testified before the Interstate Commerce Commission on the design and application of this pathbreaking rail cost system since adopted by the Commission and the rail industry.

He also directed development and installation of a commercial computerized economic and market analysis system now used by virtually all major US railroads.

#### **Consolidated Rail Corporation, PA**

##### **Assistant Director, Cost & Economics (1977 - 1979)**

Mr. O'Connor was responsible for all Conrail management and regulatory cost analyses in both freight and passenger areas. He testified before the ICC on the development of subsidy standards now widely used in the US railroad industry. He also finalized the design, and implemented and managed Contribution Simulator and Calculator (COSAC), a computerized internal management economic analysis system at Conrail. The COSAC system uses specific management accounting data to develop economic costs. COSAC replaced earlier systems and was used to guide virtually all transportation management decisions.

Mr. O'Connor also participated in cost allocation negotiations between Amtrak and



Conrail on cost sharing of joint facilities on the North East corridor. He initiated and directed profit maximization and plant rationalization programs. He also designed and implemented computerization and improvement of a wide range of economic and cost analysis systems used to manage this multi-billion dollar corporation.

**R.L. Banks & Associates Inc., Washington, DC**

**Consultant (1976 - 1977)**

Mr. O'Connor conducted and directed numerous transportation- related projects in the U.S. and Canada ranging from national logistics analyses to site-specific studies. He specialized in costing systems and appeared as an expert witness on such systems in a precedent setting proceeding before a Canadian Crown Commission.

**U.S. Railway Association, Washington, DC**

**Manager, Local Rail Service Planning (1974 - 1976)**

Mr. O'Connor developed, computerized and implemented the light density lines cost analysis system, which defined Conrail. He served as liaison with congressional staffs and shipper groups, as well as federal, state, and local governments, and planning agencies. The system he created was a major element in the design and implementation of the streamlined Midwest-Northeast regional rail system. Mr. O'Connor subsequently appeared as an expert witness to present and defend the operation of the USRA costing system.

**Interstate Commerce Commission,**

**Economist, Washington, DC (1973-1974)**

Mr. O'Connor served as a staff economist and authored a report analyzing industry investment patterns and ICC regulatory policy, including ICC use of cost evidence.

**Education**

University of Massachusetts, Amherst,    B.A. Economics  
University of Wisconsin, Graduate Course Work, Economics  
University of Delaware, Graduate Course Work, Business Management  
The American University, Graduate Course Work, Computer Science

**Professional Organizations**

Transportation Research Board

- Former Chairman of Surface Freight Transportation Regulation Committee

Transportation Research Forum

- Former President of the Cost Analysis Chapter

National Defense Transportation Association

- Former Member of Board of Directors, National Capital Chapter

Phi Beta Kappa academic honors society  
Phi Kappa Phi academic honors society

**Military**

U.S. Army; Sergeant, Combat Engineers

**Security Clearance**

Secret

**X. Appendix B: Data and Analysis**

**SK**

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Oxy Chem					
Merger Scenarios - Analysis of Moves					
	Origin Points		Destination Points		
	<u>2 to 1</u>	<u>3 to 2</u> <u>Comment</u>	<u>2 to 1</u>	<u>3 to 2</u> <u>Comment</u>	
BNSF with CN/IC None		None	Lemont, IL Willow Springs, IL Millsdale, IL McCook, IL	None	
BNSF/CN-IC with None NS		Mobile, AL	Saratand, AL	Mobile, AL	
				Charlotte, NC Toledo, OH	not including shortlines
UP with CSXT	None	None	None	Cleveland, OH	not including shortlines

**SK**

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**Oxy Chem**

**Merger Scenarios - Analysis of Moves**

	<b>Origin Points</b>		<b>Destination Points</b>		
	<u>2 to 1</u>	<u>3 to 2</u>	<u>Comment</u>	<u>3 to 2</u>	<u>Comment</u>

UP with NS	None	None	None	Cleveland, OH	not including shortlines
BNSF/CN-IC with None CSXT		Mobile, AL	Muskegon, MI Sauget, IL	Mobile, AL Charlotte, NC Toledo, OH	not including shortlines

**SK**

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OxyChem Points Currently Sole-Served

BNSF

Origin Points

BONNEVILLE, WY

Destination Points

12 points in 5 states

CSXT

Origin Points

CASTLE HAYNE, NC

Destination Points

35 points in 14 states

1220 L St NW    Wash, DC 20005

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<u>OxyChem Points Currently Sole-Served</u>	
<u>IC</u> Origin Points	ROMEVILLE, LA CONVENT, LA
Destination Points	5 points in 3 states
<u>NS</u> Origin Points	EVANS CITY, AL REYBOLD, DE
Destination Points	19 points in 7 states
<u>UP</u> Origin Points	TAFT, LA
Destination Points	23 points in 8 states

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**OxyChem Points Currently Sole-Served**

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CPRS

Origin Points

NONE

Destination Points

One point in one province

KCS

Origin Points

NONE

Destination Points

4 points in 4 states

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**OxyChem Points Currently Sole-Served**

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**VARIOUS SHORTLINES**

**ONLY**

Origin Points

NONE

Destination Points

24 points in 10 states

Note: Potential originating and terminating carriers are carriers serving city in question.  
Individual plants/customers may be served by fewer carriers.

Source: The Official Railway Guide, March/April 2000

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OxyVinyls - PVC						
Merger Scenarios - Analysis of Moves						
		Origin Points		Destination Points		Comment
		2 to 1	3 to 2	2 to 1	3 to 2	
BNSF with CN/IC		None	None	None	None	
BNSF/CN-IC with NS		None	Niagara Falls, ON	None	Buffalo, NY not including shortlines Montreal, PQ Niagara Falls, ON Charlotte, NC Columbus, MS	not including shortlines

OxyVinyls - PVC						
Merger Scenarios - Analysis of Moves						
		Origin Points		Destination Points		Comment
		2 to 1	3 to 2	2 to 1	3 to 2	
		Comment	Comment	Comment	Comment	
UP with CSXT	None	None	None	None	Cleveland, OH	not including shortlines
UP with NS	None	None	None	None	Cleveland, OH	not including shortlines
BNSF/CN-IC with CSXT	None	None	None	Saginaw, MI	not including Charlotte, NC	shortlines

OxyVinyls Points Currently Sole-Served	
<u>Railroad</u>	Sole Served Point
BNSF ORIGIN POINTS	NONE
DESTINATION POINTS	Twelve points in ten states
CN ORIGIN POINTS	NONE
DESTINATION POINTS	Three points in three separate provinces
CPRS ORIGIN POINTS	NONE
DESTINATION POINTS	Five points in three provinces and two states

OxyVinyls Points Currently Sole-Served	
<u>Railroad</u>	Sole Served Point
CSXT	
ORIGIN POINTS	NONE
DESTINATION POINTS	Twenty points in nine states
KCS	
ORIGIN POINTS	NONE
DESTINATION POINTS	Two points in two states

<u>OxyVinyls Points Currently Sole-Served</u>	
<u>Railroad</u>	<u>Sole Served Point</u>
<u>NS</u> ORIGIN POINTS	NONE
DESTINATION POINTS	Twenty eight points in ten states
<u>UP</u> ORIGIN POINTS	ADDIS, LA GREGORY, TX
DESTINATION POINTS	17 points in 8 states
<u>VARIOUS SHORTLINES</u> <u>ONLY</u> ORIGIN POINTS	CALVERT CITY, KY
DESTINATION POINTS	Eleven points in eight states and one province
Note: Potential originating and terminating carriers are carriers serving city in question. Individual plants/customers may be served by fewer carriers. Source: The Official Railway Guide, March/April 2000	

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**VERIFICATION**

I, Tom O'Connor, declare under penalty of perjury that the foregoing statement is true and correct and was prepared by me or at my direction. Further, I certify that I am qualified and authorized to file this statement. Executed on May 15, 2000.

Tom O'Connor

Tom O'Connor

Subscribed and sworn to before me this 15th day of May, 2000 in the District of Columbia.

Janna R. Taylor

Notary Public

My Commission expires: April 30, 2001

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Verified Statement of Tom O'Connor  
Ex Parte No. 582 (Sub-No. 1) May 16, 2000



Notice of Service

Copies of this Verified Statement and the accompanying Comments were served by first class mail on the Parties of Record for Ex Parte 582 (Sub No.-1).

Tom O'Connor